



HYDROTECHNIK UK
TEST ENGINEERING LTD

Nitrogen Gas Charging & Testing Kit PC280/70

- Safe & easy to use Minimesse[®] charging & testing connections
- Connects to most types of bladder accumulator valve
- Minimesse test points offer excellent system access versatility
- Simple hand tightening hose connection on to charging valves
- Low cost solution for charging of different accumulator valves
- Safely test, charge or bleed



Accumulator charging and testing kit typically used for charging bladder accumulators with Nitrogen as well as pressure checking and pressure adjustment.

Nitrogen accumulators
Fire suppression systems
Mobile hydraulics
Industrial hydraulics

MINIMESS®

Gas Charging Kits & Accessories

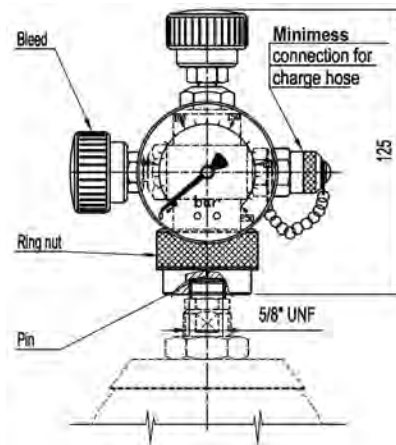
PC280/70

Accumulator Gas Charging & Testing Kit PC280/70

Accumulator charging and testing kit used for charging bladder accumulators with Nitrogen as well as pressure checking and pressure adjustment.

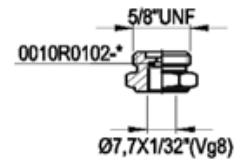


Charging Device HT2157 (5/8"-18 UNF Female)

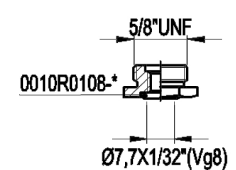


Important note: Accumulator connection to be specified (refer to identification code)

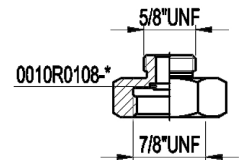
HT2513 (VG8 Schrader style long thread)



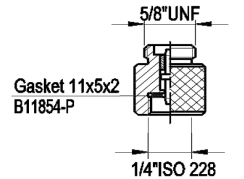
HT2510 (VG8 Schrader style)



HT2511 (7/8"-14 UNF Female)



HT2512 (1/4" BSP Parker style)



Features

- Test or charge using Hydrotechnik Minimes® connections up to 630 bar
- Simple hand tightening hose connection on to accumulator charging device
- Compact accumulator charging device
- Connection options for most popular bladder accumulator charging valves
- Economically priced

Kit Contents

- Valve body complete with 5/8"-18 UNF female ring nut connection to accumulator gas valve, with bleed and Minimes charging hose connection.
- Accumulator charging valve adaptors to 7/8"-14 UNF female, (short thread), 5/16"-32 UNEF (VG8) female (short thread) and 1/4" BSP female (with pin)
- 2.5m long High pressure microbore flexible hose complete with Minimes connections.
- Two pressure gauges (60 bar and 250 bar)
- 5/8" BSP male bullnose adaptor to connect to nitrogen bottle with Minimes charging hose connection
- Set of spare gaskets
- Carrying case

SPARE PARTS CODES

PC280/70	
Gasket Set	PC-Seals
Minimes Valve	2103-01-18.00
Charging Assembly	HT2157
Charging Hose	S110-AC-AC-02.50
Pressure Gauge 60 bar	13S721142451000
Pressure Gauge 250 bar	13S721442451000
Adaptor-VG8	HT2510
Adaptor-7/8" UNF	HT2511
Adaptor with Pin - 1/4" BSP	HT2512

ORDERING CODE

PC	280/70	- (X, A, B, C or D)		
(Pre-loading & checking set)	Pressure Gauges (full scale range in Bar)	Connection to Accumulator	Connection to Nitrogen Bottle	Charging Hose (length in meters)
	250 & 60 bar (Standard) On request: 400, 350, 200, 160 100, 40, 25, 10	X = 5/8"-18 UNF female (Standard) A = 5/16"-32 UNEF / VG8 female B = 7/8"-14 UNF female C = 1/4" BSP female (with pin) D = Universal (all of the above)	5/8" BSP Male (UK Standard) <i>Nitrogen bottle adaptors for different country standards available on request</i>	2.5 metres On request: Any length up to 10 metres

Operational and Maintenance Instructions

Use of charging device PC280/70 only to fill a Nitrogen gas accumulator from a Nitrogen gas bottle or to drain or measure the pressure of a Nitrogen filled accumulator. It is important to keep gas pressure in the accumulator constant and it should therefore be checked periodically by means of **Pre-loading & Checking Unit (PC)**. The same equipment is used for re-inflating the bladder after serving or replacement. Connection is made by a special minimess hose to the dry nitrogen bottle with adaptor.

Pressure checks

This is a simple operation, the correct procedure is as follows:

- **Isolate** the Accumulator from the system and reduce the liquid **pressure to zero**
- Remove the protective and sealing caps from the gas valve.
- Prior to mounting the PC unit ensure that Valve knob **"A"** is unscrewed, Bleed Valve **"B"** is closed and Minimess Valve **"C"** is **screwed tight**.
- Attach PC unit to the gas-fill valve by means of Ring Nut **"D"**.
- Screw Valve Knob **"A"** to a point where pressure is registered.

If the pressure is OK remove the PC Kit as follows:

- Unscrew the Valve Knob **"A"**
- Open the Bleed Valve **"B"** and unscrew the Ring Nut **"D"**

General

When charging, the nitrogen bottles must be capable of delivering pressure higher than the desired accumulator gas pressure.

Pressure reduction

- Fit PC Unit as described (See Column to the left)
- Reduce the nitrogen pressure by opening Bleed Valve **"B"** slowly while Valve Knob **"A"** is screwed in until the correct pressure is registered on the gauge.

Increase or reset precharge pressure

- Fit the PC unit as described above.
- Fit the bottle adaptor to the nitrogen cylinder
- Connect the minimess hose between the cylinder and the Minimess valve **"C"**
- Slowly open the valve on the cylinder until the gauge registers a pressure slightly higher than the one desired, then shut.
- Unscrew Knob **"A"** and reduce the pressure on PC Kit to Zero by means of the Bleed Valve **"B"**
- Disconnect the hose from the non-return valve and replace cap.
- Close the Bleed Valve **"B"** and wait approximately 5 minutes for the temperature to stabilise.
- Screw Valve Knob **"A"** until the pressure can be read. This should be slightly higher than the desired pressure.
- Adjust by means of the Bleed Valve & remove the filling unit.
- Use soapy water test for leaks
- Replace the valve cover and protection caps.
- The Accumulator is now precharged as per the requirement

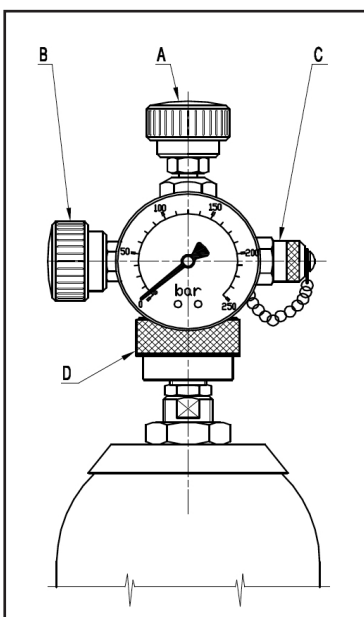
Warning

It is recommended that the gas line is fitted with a safety relief valve when charging accumulators with shell ratings of less than Nitrogen Cylinder pressure.

Note

Standard equipment PC280/70 is supplied with two pressure gauges: the high pressure gauge (250 bar) is used for charging and for checking precharge pressures higher than 50 bar. The low pressure gauge (60 bar) is used for precharge pressures lower than 50 bar.

ONLY NITROGEN MUST BE USED FOR CHARGING. AIR OR OXYGEN COULD CAUSE AN EXPLOSION



Connection Diagram



Connection Example

